CLAIMS

1. An immunogen which comprises

   e)   at least one first antigenic determinant
           constituted by an amino acid sequence that includes
5   at least one B-cell epitope and/or at least one CTL
           epitope, and

   f)   at least one second antigenic determinant
           constituted by an amino acid sequence that includes
           a T helper cell epitope (T_H epitope),

10 wherein each of the at least one first and second antigenic
   determinants are independently coupled through the nitrogen
   atoms at their respective N-termini to a pharmaceutically
   acceptable activated polyhydroxypolymer carrier via a bond
   that is cleavable by a peptidase.

15 2. The immunogen according to claim 1, wherein the at least
   first and at least second antigenic determinants are coupled
   to the activated polyhydroxypolymer carrier via an amide bond
   or a peptide bond.

3. The immunogen according to claim 2, wherein the at least
20 first and at least second antigenic determinants each provide
   for the nitrogen moiety of their respective bond.

4. The immunogen according to claim 1, wherein the
polyhydroxypolymer carrier is substantially free of amino acid
residues.

25 5. The immunogen acccording to claim 1, wherein the
polyhydroxypolymer is water soluble.

6. The immunogen acccording to claim 1, wherein the polyhydroxypolymer is water insoluble.

7. The immunogen according to claim 1, wherein the polyhydroxypolymer is selected from naturally occurring
5 polyhydroxy compounds and synthetic polyhydroxy compounds.

8. The immunogen according to claim 1, wherein the polyhydroxypolymer is a polysaccharide selected from acetan, amylopectin, gum agar-agar, agarose, alginates, gum Arabic, carregeenan, cellulose, cyclodextrins, dextran, furcellaran,
10 galactomannan, gelatin, ghatti, glucan, glycogen, guar, karaya, konjac/A, locust bean gum, mannan, pectin, psyllium, pullulan, starch, tamarine, tragacanth, xanthan, xylan, and xyloglucan.

9. The immunogen according to claim 8, wherein the
15 polyhydroxypolymer is dextran.

10. The immunogen according to claim 1, wherein the polyhydroxypolymer is selected from highly branched poly(ethyleneimine)(PEI), tetrathienylene vinylene, Kevlar (long chains of poly-paraphenyl terephtalamide),
20 Poly(urethanes), Poly(siloxanes), polydimethylsiloxane, silicone, Poly(methyl methacrylate) (PMMA), Poly(vinyl alcohol), Poly(vinyl pyrrolidone), Poly(2-hydroxy ethyl methacrylate), Poly(N-vinyl pyrrolidone), Poly(vinyl alcohol), Poly(acrylic acid), Polytetrafluoroethylene (PTFE),
25 Polyacrylamide, Poly(ethylene-co-vinyl acetate), Poly(ethylene glycol) and derivatives, Poly(methacrylic acid), Polylactides (PLA), Polyglycolides (PGA), Poly(lactide-co-glycolides) (PLGA), Polyanhydrides, and Polyorthoesters.

11. The immunogen according to claim 1, wherein the average molecular weight of the polyhydroxypolymer before activation is at least 500.

12. The immunogen according to claim 1, wherein the
5 polyhydroxypolymer is activated with functional groups selected from tresyl (trifluoroethylsulphonyl), maleimido, p-nitrophenyl cloroformate, and tosyl (p-toluenesulfonyl).

13. The immunogen according to claim 1, that further comprises that at least one moiety is coupled to the polyhydroxypolymer,
10 said at least one moiety being selected from the group consisting of an immune stimulating moiety or a targeting moiety.

14. The immunogen according to claim 13, wherein the at least one moiety is a peptide.

15 15. The immunogen according to claim 1, which is capable of being taken up by an antigen presenting cell (APC).

16. The immunogen according to claim 15, which is capable of being processed by the APC whereby the APC presents the T_H epitope on its surface bound to an MHC Class II molecule.

20 17. The immunogen according to claim 1, wherein the at least one first and second antigenic determinants are not derived from the same naturally occurring molecule.

18. The immunogen according to claim 17, wherein the at least one and the at least second antigenic determinants do not
25 occur naturally in the same species.

19. The immunogen according to claim 1, wherein the T_H epitope binds strongly to at least one human MHC Class II molecule.

20. The immunogen according to claim 19, wherein the T_H epitope is a promiscuous T_H epitope in humans.

5 21. An immunogenic composition for raising an immune response against an antigen in a mammal, including a human being, comprising the immunogen according to any one of the preceding claims in admixture with a pharmacologically an immunologically acceptable carrier, excipient or diluent, and
10 optionally with an adjuvant.

22. The immunogenic composition according to claim 21, wherein the adjuvant is selected from the group consisting of an immune targeting adjuvant; an immune modulating adjuvant such as a toxin, a cytokine and a mycobacterial derivative; an oil
15 formulation; a polymer; a micelle forming adjuvant; a saponin; an immunostimulating complex matrix (an ISCOM matrix); a particle; DDA; aluminium adjuvants; DNA adjuvants; γ-inulin; and an encapsulating adjuvant.

23. A method for immunizing an animal, including a human
20 being, against an antigen of choice, the method comprising administering an effective amount of the immunogen according to claim 1 or an immunogenic composition for raising an immune response against an antigen in a mammal, including a human being, comprising the immunogen according to any one of the
25 preceding claims in admixture with a pharmacologically an immunologically acceptable carrier, excipient or diluent, and optionally with an adjuvant, to the animal, wherein the antigen shares the at least one first antigenic determinant with the immunogen.

24. The method according to claim 23, wherein the immunogen or the immunogenic composition is administered via a route selected from a route selected from the group consisting of the parenteral route such as the intracutaneous, the

5 subcutaneous, and the intramuscular routes; the peritoneal route; the oral route; the buccal route; the sublinqual route; the epidural route; the spinal route; the anal route; and the intracranial route.

25. The method according to claim 23, wherein the effective

10 amount of the immunogen is between 0.5 μg and 2,000 μg.

26. The method according to claim 23, wherein there is provided at least one administration per year.

27. The method according to claim 23, wherein there is provided at least two administrations per year.

15 28. The method according to claim 23, wherein there is provided at least three administrations per year.

29. The method according to claim 23, wherein there is provided at least four administrations per year.

30. The method according to claim 23, wherein there is

20 provided at least six administrations per year.

31. The method according to claim 23, wherein there is provided at least twelve administrations per year.

32. The method according to claim 23, wherein the immunogen or the immunogenic composition is contained in a virtual lymph

25 node (VLN) device.